



BUILDING BETTER TRANSPORTATION

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FORREST WILLIAMS, MEMBER

STAFF: ED SHIKADA, CITY MANAGER'S OFFICE
SHARON LANDERS, REDEVELOPMENT AGENCY
JIM WEBB, MAYOR'S OFFICE

AGENDA

1:30 PM

March 7, 2005

Room 204

A) Expansion and Improvement of Transit and Transportation Systems

1. No items

B) Traffic Relief/Safe Streets

1. Red Curb Standards for Schools (Transportation)
2. Proposed changes to the Crossing Guard Safety Index (Transportation)

C) Supporting Smart Growth

1. No items

D) Regional Relationships/Funding/Policy

1. Local Transportation Infrastructure Funding Alternatives (Transportation)
2. Report on Proposed Legislation for a Vehicle Registration Surcharge in Santa Clara County – Continued from February 7, 2005.

E) Oral Petitions

F) Adjournment

NOTE: If you have any changes or questions, please contact Michele Phillips, at 277-5624

To arrange an accommodation under the Americans with Disabilities Act to participate in this public meeting, please call 277-5624 (voice) or 998-5299 (TTY) at least 48 hours before the meeting.

Memorandum

**TO: BUILDING BETTER
TRANSPORTATION COMMITTEE**

FROM: James R. Helmer

**SUBJECT: RED CURB STANDARDS
FOR SCHOOL CROSSWALKS**

DATE: 02-25-05

Approved 

Date 2/28/05

Council District: Citywide

RECOMMENDATION

That the Building Better Transportation Committee accept this report.

BACKGROUND

This memorandum is in response to a recommendation by Mr. Glen Wetzel, the chair of the Matsumoto PTA Traffic Committee, that the City adopt an ordinance establishing the length of red curb required adjacent to school crosswalks. On October 6, 2004, the Rules Committee referred this issue to the Building Better Transportation Committee.

ANALYSIS

The Department of Transportation (DOT) has guidelines for the installation of marked crosswalks. These guidelines have recently been updated to include a section indicating that consideration needs to be given in the review of each warranted crosswalk location regarding the need for parking restrictions. If parking restrictions are necessary, red curb will generally be installed. However, in some locations, no parking/stopping signs may be more appropriate. The update to the guidelines formalizes the review process that has already been occurring in the review of crosswalk installations.

The length of red curbing needed adjacent to crosswalks is dependent upon many factors and requires thorough engineering evaluation of each individual location. Factors that are taken into consideration include: traffic volumes on the street, neighborhood traffic patterns, speed limit, street and travel lane widths, parking demand, geometry of the street such as any roadway curvature, crash history, and traffic controls near the crosswalks.

When a crosswalk is near, or adjacent to a school, additional factors are taken into consideration, such as: pick-up and drop-off locations, traffic circulation around the school, and availability of parking spaces near the school and within the school parking lot.

Each crosswalk location is studied on a case-by-case basis to factor in all of the above circumstances. Careful consideration is given to crosswalks located midblock, at uncontrolled intersections, and near schools and other high pedestrian generators.

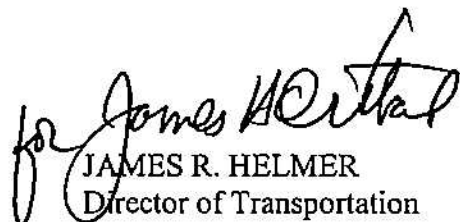
In November 2004, Mr. Wetzel also requested that the City introduce an ordinance mandating that all school crosswalks be of ladder style for added visibility. DOT supports the increased emphasis on school area crosswalks and has a current practice of using adopted guidelines for enhanced crosswalks that provides a thorough, case-by-case evaluation of each location. DOT does not support changing this practice, which has been very effective in improving traffic safety around schools.

Staff offered to evaluate specific crosswalk locations that may be of a concern to Mr. Wetzel. Mr. Wetzel was more interested in a Citywide standard by introducing a new ordinance, and did not have a specific location that was a concern.

The City of San José supports school safety through three City Service Areas (CSAs): Recreation and Cultural Services, Transportation, and Public Safety. As reported to the City Council in the past, these CSAs offer a wide variety of programs that work together with schools, community organizations, neighborhoods and residents to promote school safety.

For example, in 1997, DOT developed suggested walking routes to every elementary and middle school in San Jose. Traffic and pedestrian safety was evaluated at each school, and recommendations were made regarding new crosswalk locations, suggested relocations, and enhancements that would improve crossing conditions. DOT used these recommendations to install additional signage and striping where appropriate. The suggested walking routes were also provided to each school district. As traffic conditions change, or when new schools are opened or school boundaries change, the suggested walking routes are modified.

In FY01-02, DOT conducted a School Access Enhancement study at 42 elementary and middle schools. This study comprehensively identified public right-of-way and school site improvements to enhance the safety of pedestrians, bicyclists, and motorists in the vicinity of school areas during school pick-up and drop-off periods. DOT and the Police Department used the recommendations in this study to further enhance traffic conditions at schools through focused enforcement and education efforts and by modifying or installation new signs and striping where needed. Although funding constraints have limited the ability to complete this study at the remaining schools, DOT staff does respond to concerns raised by schools and parents as they arise.


JAMES R. HELMER
Director of Transportation

Memorandum

**TO: BUILDING BETTER
TRANSPORTATION COMMITTEE**

**FROM: James R. Helmer
Robert L. Davis**

**SUBJECT: PROPOSED CHANGES TO THE
CROSSING GUARD SAFETY INDEX**

DATE: 02-24-05

Approved 

Date *2/28/05*

Council District: Citywide

RECOMMENDATION

The Building Better Transportation Committee accept this report and approve the modifications to the Safety Index formula.

BACKGROUND

The Department of Transportation (DOT) provides support to the San Jose Police Department's Adult Crossing Guard Program by performing analyses of intersections requested for placement of guards, and providing support to the School Pedestrian Safety Committee (SPSC). In May 2004, the City Auditor's Office completed a report highlighting their audit of the City's Adult Crossing Guard Program. This report contained several recommendations with regards to improving the evaluation of requests for crossing guard placement. All of the recommendations were categorized as Priority 3.

Staff is in agreement with all of the auditor's recommendations. This report details the steps taken to address many of the recommendations, along with a timeline for responding to the remaining recommendations.

This report also addresses the suggestion from Mr. Glen Wetzel, the chair of the Matsumoto PTA Traffic Committee, to consider a much shorter period than the current one hour study period used to evaluate intersections for crossing guard placement.

ANALYSIS

The Safety Index formula was developed in 1950 as a method to evaluate which intersections needed an adult crossing guard. At that time, a safety index of 120 was selected as the minimum value for recommending placement of a crossing guard. While the safety index has undergone some modifications, a minimum of 120 is still used as the value needed to warrant a crossing guard.

The safety index is used as an objective means for evaluating the relative safety of intersections in the City, with respect to students crossing the roadway. Locations with a high index rating are considered less safe than locations with a low index. The Safety Index is calculated using the following factors:

- Width of the roadway
- Number of vehicles crossing the crosswalk
- Turning movements over the crosswalk
- Number and age of school children crossing in one hour
- Existing traffic controls, such as signals, stop signs, etc.
- Speed of traffic
- Walking speed/decision time

Following are the auditor's recommendations and DOT's response to those recommendations.

Recommendation 1: Revise the Safety Index formula to 1) provide a more appropriate age factor for K-5 and K-6 schools and turn factor for the number of cars turning into a crosswalk, and 2) provide sufficient weight to intersections with high numbers of children crossing the street.

DOT has revised the Safety Index formula to incorporate several changes, including those recommended within the Auditor's report. The changes have been made to more accurately reflect conditions at the location being studied. The specific Safety Index formula revisions include:

Age Factor – The existing formula uses a tiered age factor structure that varies depending upon the age of students using the crosswalk and distance from the school to the crosswalk. Locations serving young students are assigned a higher age factor. At locations serving both elementary and middle grades, the age factor is lower as it is based upon the oldest grade using the crosswalk. However, at many of these mixed locations, there may be many elementary students crossing without a parent or guardian. To account for this, the age factor in the revised formula will be dependent upon the youngest age of school children using the crosswalk. In addition, only two different age factors will be used, a factor for elementary schools, and another for middle schools; both of which are not dependent upon distance from the school.

Exposure Value – The exposure value is based upon the volume of pedestrians and vehicles traveling over the crosswalk. The existing Safety Index formula uses a minimum value for the exposure value. However, with the existing formula, the majority of intersections studied used the minimum exposure value. There was no variance in the exposure value to reflect differences in volumes of pedestrians or vehicles. To more accurately reflect conditions at the intersection being studied, and to provide more weight to locations with high vehicle or pedestrian volumes, the formula for the exposure value has been revised.

Turning movements -- The turning movement factor is based on a formula, and was previously capped at a maximum value that corresponded to a turning volume of 300 vehicles in a one hour period. The turning movement factor in the new Safety Index formula assigns more weight to intersections experiencing heavier turning movements and is more reflective of the practical capacity an intersection has for turning movements.

Traffic Control Factor -- The traffic control factor for a stop controlled intersection has been increased to account for the incidence of rolling stops that occur at many stop signs, and the increased hazard this poses to pedestrians. The traffic control factor for a signal controlled intersection has also been increased. The traffic control factor in the existing safety index is low as it considers all vehicle movement over a crosswalk. However, the primary hazard to pedestrians crossing at a signalized location is from the left turning vehicles traveling over the leg being crossed, or right turning vehicles turning from or onto the leg being crossed. The revised traffic control factor has been increased as it only considers the vehicle movements that pose a hazard to pedestrians.

Unusual Conditions -- Not present in the old formula, the new Safety Index formula assigns points for unusual conditions, which is similar to the process used in the Stop Warrant analysis. The Unusual Conditions to consider include: high aggregate pedestrian volume on all legs of the intersection being studied, reported pedestrian and bicycle crashes, geometric conditions, volume of unaccompanied K-5 pedestrians, and reported red light running crashes. A maximum of 30 points can be assigned due to unusual conditions.

Recommendation 2: Re-calculate the intersections that have not qualified for an adult crossing guard during the past three years using the revised safety index formula and submit the results to the SPSC.

After approval of the revised Safety Index formula by the City Council, DOT will re-calculate intersections studied within the 2002, '03, and '04 calendar years. The results of the restudied intersections will be presented to the SPSC in the Fall 2005.

Recommendation 3: Submit the revised Safety Index formula to the SPSC and the City Council for approval.

The revised Safety Index formula was reviewed with the SPSC at it's November 2004 meeting. The SPSC was in support of the revisions and requested that a few enhancements be made. Specifically, the SPSC requested that: 1) the unusual conditions aspect of the revised formula that assigned points to pedestrian crashes be expanded to also include bicycle crashes, and 2) consideration also be given to intersections with crashes resulting from motorists running red lights. These enhancements have been incorporated into the revised Safety Index formula.

Recommendation 4: Submit to the City Council the anticipated budgetary implications of increasing the Safety Index value.

The revisions to the Safety Index formula do not include a recommendation to increase the minimum value required for placement of a crossing guard. As a result, the revisions to the formula do increase the opportunities for an intersection to qualify for a crossing guard.

At this time it is not known how many additional intersections may qualify for a crossing guard with the revised Safety Index formula. As indicated above, DOT will re-calculate studied intersections that did not qualify from the previous three calendar years to determine if any would be warranted under the new formula.

Based on input from the Police Department, each additional crossing guard will cost about \$7,500 per year. Each additional 50 guards will also require a coordinator/supervisor, at an annual cost of \$64,000.

Recommendation 5: Develop written procedures for entering information into the safety index formula and provide sufficient supervisory review.

An automated spreadsheet was prepared that significantly simplifies the process of determining the Safety Index formula. This new spreadsheet also eliminates much of the potential for human error, such as in determining which leg of an intersection or which school hour may generate the highest Safety Index. Procedures have been developed to identify what information needs to be entered into the spreadsheet. Periodic checks by supervisory staff will be made of completed intersection studies to ensure that the data is being entered correctly.

Recommendation 6: Develop written procedures for analyzing intersections and documenting the rationale for its decisions.

As noted in the response to Recommendation 5, a new spreadsheet has been developed that automates much of the process for determining the Safety Index formula. For the few steps in the process that require decisions, procedures have been developed to provide directions on these decisions, and the spreadsheet documents the decisions that have been made.

Recommendation 7: Provide the SPSC with the posted speed limit and the date of any applicable speed study and a diagram of the intersection it is considering for an adult crossing guard showing:

- The number of children, their approximate ages, and the direction they are crossing;
- The total number of vehicles crossing each leg of the intersection and the direction they are going; and
- The total number of vehicle turns crossing each leg of the intersection

DOT began providing the SPSC with all of the above information in the Fall 2004 on hand drawn sketches. The new spreadsheet prepared for determining the Safety Index is also linked with an intersection diagram that is formatted to display the above information. A sample of this diagram is attached to this report.

Recommendation to Reduce 1-Hour Study Period

Mr. Wetzel has recommended that the Safety Index formula not use a 1-hour study period. Mr. Wetzel proposes that a much shorter period, such as 10-15 minutes, be used to account for 'impulse' traffic that occurs when children are using the crosswalk.

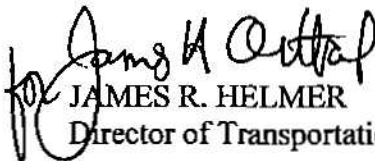
The Safety Index formula was developed to provide a means of relatively comparing pedestrian and traffic conditions at intersections throughout the City. Pedestrian activity at crosswalks is not necessarily limited to a short period of time as Mr. Wetzel suggests. A 1-hour study period is used to account for schools with staggered start and dismissal time, schools with programs that occur before and after school, and crosswalks that provide access to multiple schools. A shorter time period, such as 10-15 minutes, may not adequately represent pedestrian and vehicles activity at a crossing location.


COST IMPLICATIONS

The proposed changes to the Safety Index formula will provide greater opportunities for an intersection to qualify for an adult crossing guard. As indicated in the response to Recommendation 2, DOT will re-evaluate locations that did not qualify for a guard in the prior three calendar years. In the event that a larger number of intersections warrant a crossing guard, identifying additional resources will need to be considered within the context of the overall City budget, priorities, and the current fiscal situation.

COORDINATION

This report has been coordinated with the San Jose Police Department, the City Attorney's Office, and the City Auditor's Office.


JAMES R. HELMER
Director of Transportation

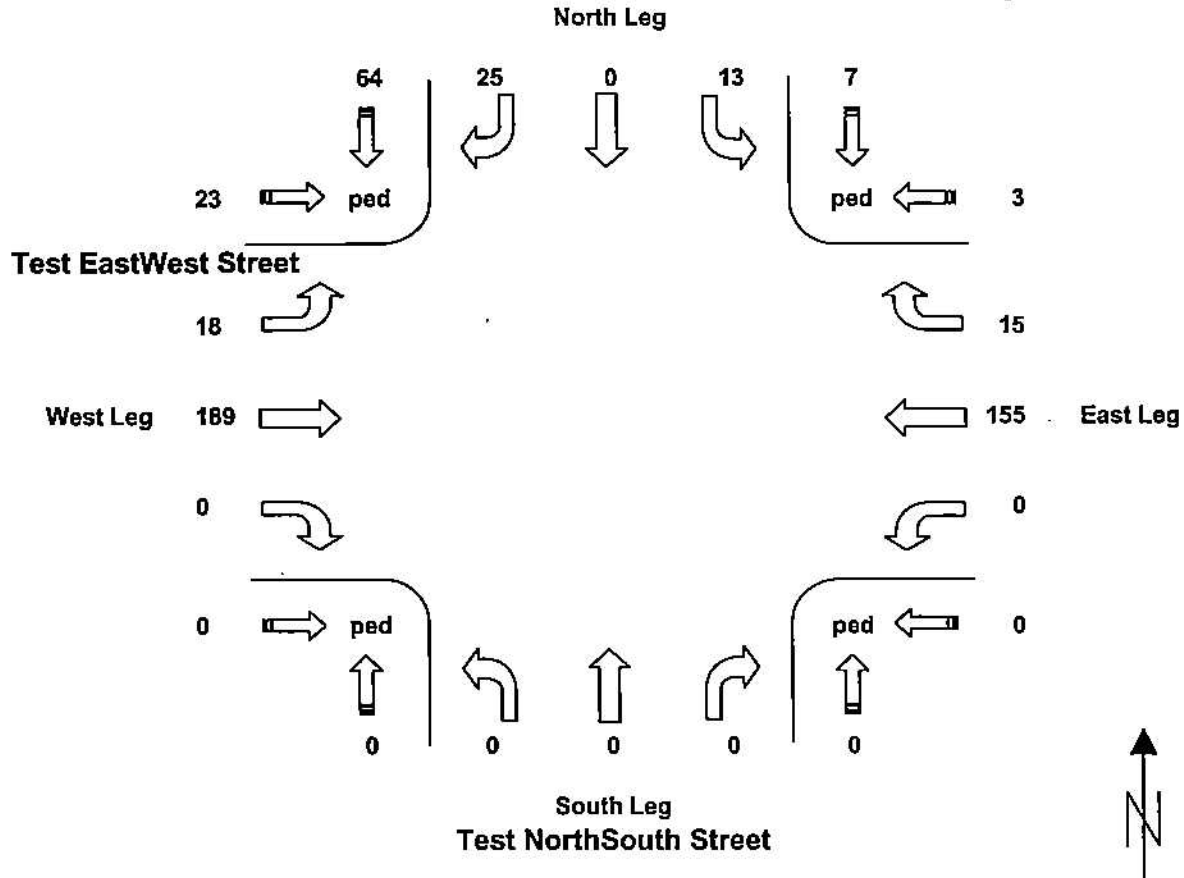

ROBERT L. DAVIS
Chief of Police

Attachment

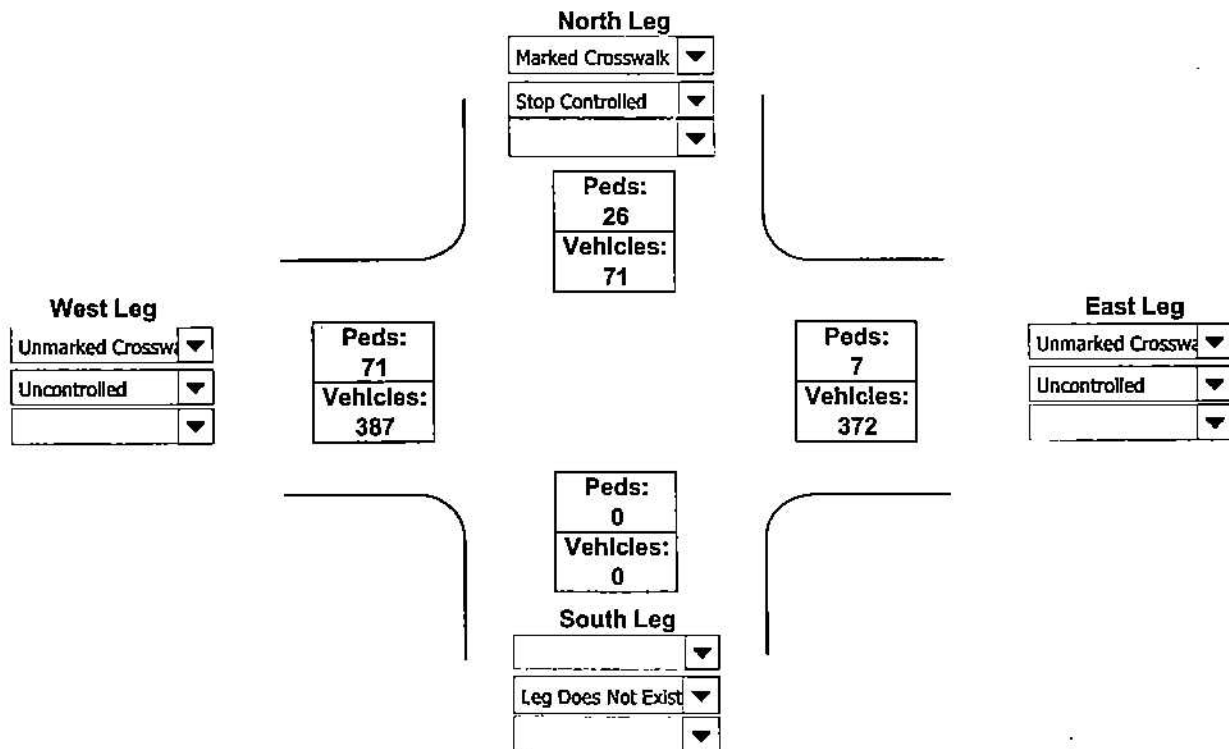
1 Hour Vehicle and Pedestrian Directional Volume Diagram

Count Date: 11/2/2004

Hour Starting: 730



Volumes Used for Adult Crossing Guard Analysis





Memorandum

**TO: BUILDING BETTER
TRANSPORTATION COMMITTEE**

FROM: James R. Helmer

**SUBJECT: LOCAL TRANSPORTATION
FUNDING ALTERNATIVES**

DATE: 02-24-05

Approved

Date

2/25/05

RECOMMENDATION

Accept report on proposed VTA sales tax measure for transit operations and local roadways.

BACKGROUND

The City is facing a severe shortfall in funding for street maintenance and other local transportation needs. As previously reported to the Building Better Transportation (BBT) Committee, staff is developing a comprehensive report on the topic that addresses the condition and backlog of needs for the City's transportation system, as well as alternative funding solutions. As an example of the current need, the street system requires a \$30 million annual expenditure to maintain streets in a "fair or better" condition. Current commitments for funding only total \$9 million (a \$21 million shortfall). At this limited funding level, 30% of the City's streets are projected to be in "poor" condition in five years.

One of the alternatives for increasing funding for local streets is a new sales tax measure for Santa Clara County proposed by the Santa Clara Valley Transportation Authority (VTA). The measure proposes a new ½-cent sales tax that would be divided with VTA receiving 75% for transit operations and cities receiving 25% for local roadway maintenance and operations. The estimated annual funding share for San José is \$14 million.

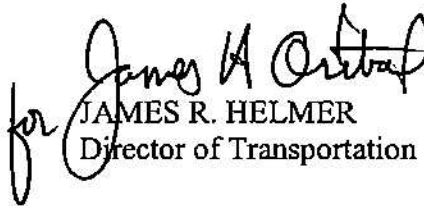
The transit funding would allow the VTA to accomplish the following goals:

- Deliver all 2000 Measure A projects, including the BART extension, Downtown East Valley transit corridor, Airport People Mover, and Caltrain service improvements
- Maintain transit service levels
- Fund upgrades to existing VTA transit system

ANALYSIS

With regard to the VTA transportation funding measure, the VTA Board of Directors will hold a workshop on April 22, 2005. To prepare for the workshop, the VTA is requesting the opportunity to discuss the program in advance with each city and the County. Staff proposes to facilitate this discussion at the March 7, 2005 meeting of the BBT Committee. This meeting will include a presentation by VTA staff on the topic.

Further, staff proposes to continue discussion of local transportation needs and funding alternatives at the April 4, 2005 meeting of the BBT Committee. For this meeting, staff will provide a comprehensive written report on the condition and needs related to the City's transportation system.


for JAMES R. HELMER
Director of Transportation


Memorandum

TO: BUILDING BETTER
TRANSPORTATION COMMITTEE

FROM: James R. Helmer
Betsy Shotwell

SUBJECT: VEHICLE REGISTRATION
SURCHARGE LEGISLATION

DATE: 02-24-05

Approved 

Date 2/25/05

RECOMMENDATION

Recommend adoption of a resolution of support by the City Council for Senate Bill 680 (Simitian), which would authorize the institution of a Vehicle Registration Surcharge (VRS) in Santa Clara County.

BACKGROUND

At the February 7, 2005 meeting of the Building Better Transportation (BBT) Committee, Department of Transportation staff presented an overview of legislation proposed by Senator Joe Simitian (D-Palo Alto), which would, if enacted, collect a \$5.00 per vehicle surcharge for vehicles registered in Santa Clara County. On February 22, 2005 SB 680 was introduced.

Due to the decline in transportation funding and the continued uncertainty of state and federal funding, local agencies have begun to investigate new opportunities for funding transportation infrastructure. This measure, as introduced, is intended to assist local governments within Santa Clara County by addressing the ongoing shortfall in funding for local transportation infrastructure projects. Senator Simitian introduced and successfully passed a similar measure to provide transportation infrastructure funding for the County of San Mateo during the 2003-2004 legislative session.

With the leadership of the Silicon Valley Manufacturing Group (SVMG), the City of San José, in cooperation with the other fourteen cities in the county, the County of Santa Clara, and the Santa Clara Valley Transportation Authority (VTA), worked together to craft language for inclusion in the measure. As indicated at the February 7 BBT meeting, local agency support of the legislation is vital to its introduction and future passage. Each of the jurisdictions within the county will be requested to offer support by the end of March 2005. The Governor has indicated that he would be willing to sign the measure if it obtained legislative passage.

ANALYSIS

As discussed in the February BBT report, the proposed measure would authorize a \$5.00 Vehicle Registration Surcharge (VRS) for eight years. The bill would sunset at the end of that period. Current estimates project that the measure would generate roughly \$56 million during the life of the legislation.

The Department of Motor Vehicles (DMV) would collect the VRS and pass the funds through to VTA. As the Congestion Management Agency (CMA) for the County of Santa Clara, VTA would serve as the fund manager for the VRS and both receive and allocate the collected funds. The funds would be allocated based upon a framework agreed to by a Technical Advisory Committee (TAC), which met to discuss the potential legislation.

Benefits to the City from this measure would be significant. Transportation infrastructure needs continue to outpace available resources and the approximately \$3 million that San José would receive annually through this program could be used to fund a diverse number of projects. These projects include the following:

- Expressway improvements along Montague, Almaden, Capitol, San Tomas and Lawrence.
- Intelligent Transportation System (ITS) and signal operations improvements.
- Proactive signal timing and upgrades to existing signal systems.
- Traffic calming.
- Development of Traffic Incident Management Center (TIMC).

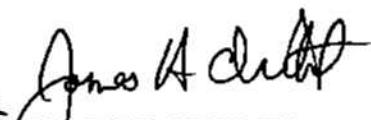
In response to questions raised at the BBT Committee, Attachment A outlines the outreach process and participation of local agencies that developed the expenditure language, as well as a description of the Technical Advisory Committee (TAC) that worked to identify the specific funding categories. On February 17, 2005, the TAC adopted an expenditure plan, which directs VTA to distribute the funds to specific categories, once the measure has been approved. Attachment B describes the recommended funding categories in detail.

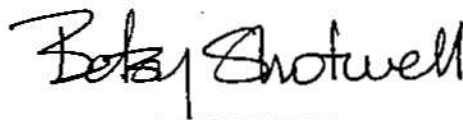
Each jurisdiction will have the opportunity to recommend specific projects that meet the particular criteria of each funding category. In large part, the project lists will be derived from the Valley Transportation Plan (VTP) 2030.

In an effort to show the broadest support possible, Senator Simitian's office has requested that all local agencies adopt resolutions of support by March 30, 2005. To that end, DOT staff in cooperation with Intergovernmental Relations will be bringing this item to the Rules Committee on March 9, 2005.

COORDINATION

This item has been coordinated with the Office of Intergovernmental Relations, and the City Attorney's Office.

for 
JAMES R. HELMER
Director of Transportation


BETSY SHOTWELL
Director of Intergovernmental Relations

ATTACHMENT A

- December 2004, the Silicon Valley Manufacturing Group (SVMG) begins outreach for a proposed legislative measure to impose a five-dollar surcharge on vehicle registration fees in Santa Clara County to fund local transportation improvements.
- Senator Joe Simitian agrees to carry the measure if consensus on such a measure can be achieved amongst all Santa Clara County cities and the county.
- December 2004, SVMG begins to meet with members of the County Board of Supervisors, local Mayors and Vice-Mayors and various Councilmembers.
- Initial consent and direction is obtained from various policymakers and a Technical Advisory Committee (TAC) consisting of City and County Public Works and Transportation staff convenes to develop the structure of the measure.
- February 2005, the TAC adopts an expenditure plan for the proposed vehicle registration surcharge. The expenditure framework reflects a consensus of city and county staff discussions. Staff held a series of meetings, which resulted in this proposed expenditure framework. Attachment B outlines the staff recommendations.
- February 22, 2005 Senator Simitian introduces Senate Bill 680.
- Senator Simitian is seeking local agency support of the bill by March 30, 2005.
- April 2005, legislative policy committees begin to consider the bills.

ATTACHMENT B

Expenditure Framework for SB 680 (Simitian) Santa Clara County Traffic Relief Bill

This Traffic Relief bill will benefit commuters throughout Santa Clara County by funding a number of important transportation improvements in all 15 cities and towns and the county. The criteria used to select projects will include geographic equity, congestion relief, cost-effectiveness and identified county priority.

Revenue generated by a \$5 vehicle registration fee would be split in the following manner after DMV's administrative fee (estimated at approximately 1%) is deducted. Assuming the vehicle registration fee runs eight years and generates \$56 million, the funds would break down in the following manner:

- \$560,000 to DMV (approx. 1% of total revenues)
- \$4 million for Caltrain capacity improvements. These funds could be used for Santa Clara County's share of the cost of purchasing additional Baby Bullet train cars, or making station or parking improvements. All improvements must meet the nexus test and serve Santa Clara County.
- \$4 million for litter removal and landscape restoration (\$500,000 per year). This money can be used on highways or county expressways. Any unused funds would revert to the competitive pool (#2) described below.

The remaining \$47 million would be divided into thirds:

1. \$16 million (approximately) for Tier 1A county expressway improvements.
2. \$16 million for street & road operational and ITS improvements --competitive pool. These funds would be available to cities/towns and the county for use on priority operational projects including small scale congestion relief projects, matching grants for larger projects, and signal timing/coordination projects.
3. \$16 million—Direct subvention. These funds would be distributed to cities/towns/county on a pro rata basis based on vehicle registrations and be available for the same uses outlined in the above two categories.